Enhancing Communication Delivery through Interactive Multimedia and Hypermedia: The Expectations, Challenges and Future

Agboola, A.K. (Ph.D)*, Jonah, A.A** & Durojaye, N.O.***

Abstract

Computer-assisted classroom or computer-enhanced learning is a powerful instructional technology that couples the enhanced representative capabilities of multimedia and hypermedia with the power to define ever more meaningful relationships between instructions, learners and learning outcomes. The contents of various courses are constantly evolving in response to advances in research and theory. Likewise the instructional methods and tools used in most of today's courses have also evolved, reflecting shifts in both the preferred pedagogical approaches and in the technological infrastructure available to the instructor and the students. This paper tries to communicate some of the best practices in computer-enhanced classroom instruction. The paper begins by highlighting the historical mileage of media use for instructional delivery and explicates some lessons learned from the past two decades of research and classroom experience with instructional technology. The paper then considers the rationale behind multimedia and hypermedia use and how these principles can be applied to the use of computer-based technology in class lectures. Also, the paper pinpoints some of the expectations, challenges and future of both multimedia and hypermedia use in teaching. Finally, the paper concludes that if done well, multimedia and hypermedia contents organized with a slideware tool can generate productive and stimulating presentations that lead to greater retention, application to new situations, and performance on assessments. But if otherwise, they can be a distraction from learning and ultimately unproductive. The paper recommends that learner characteristics should be accessed that are important to learning with both multimedia and hypermedia and consider possible interactions between these characteristics, the multimedia and hypermedia designs, and learners' information utilization strategies.

Keywords: Multimedia, hypermedia, cognitive learning, computer-assisted classroom, computer-enhanced learning.

Introduction

The use of multimedia and hypermedia in the classroom has increased exponentially over the course of the last twenty years (Pivec & Pivec, 2008). They

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(multimedia and hypermedia) can engage students in virtual worlds where they can apply content knowledge, practice skills, and enhance thinking in a fail-safe environment. They have the ability to engage students in virtual worlds where they can apply their knowledge and skills. Multimedia and hypermedia make learning fun and capture learner attention as they explore content (Squire, 2005).

Moreover, hypermedia, especially, gaming is no longer a fringe society, but an accepted part of daily life that counts up to 97% of US adolescents age 12 to 18 as users. According to the Entertainment Software Association (ESA), across all age groups, video games generate an estimated $25.1 billion in direct sales in 2010 up from $10.3 billion in 2006 -a 143% growth over four years. We live in a technology driven society that affects how we learn (Ruggiero, 2012). As technology becomes more sophisticated and popularity of games grows so do claims about what affordances games can add to enhance learning in and out of the classroom (Ruggiero, Mong & Watson, 2012).

Also, several studies have indicated the promise of both multimedia and hypermedia to increase learning in the classroom have occurred over the past twenty years. In 2001, researchers found that video games, a hypermedia, could be effective as tutorials and drills for transfer of learning while improving motivation and efficiency (Alessi & Trollip, 2001). Additionally these experiences were safe, convenient, and more controllable than real experiences. Squire found that games can capture students' attention and teach them in a manner that they find enjoyable (Squire, 2004a). In 2008 Ke conducted a case study on computer games aimed at math learning and found that over the course of five weeks students developed more positive attitudes toward math learning but there was no significant effect on test performance compared to traditional methods (Ke, 2008). Moreover, Tuzun, Yilmaz-Soylu, Karakus, Inal & Kizilkaya (2009) examined how video games could be used to teach 5th and 6th grade students world continents and countries. The study found that the game led to student learning and increased motivation. Moreover, gaming technologies have potential in the classroom and are being used more and more by teachers (Can & Cagiltay, 2006 cited in Ruggiero, & St. Loe, 2013).

Media Use for Instructional Delivery: Historical Mileage

Unequivocally, from time in memorial, teaching has always been a "multimedia" endeavor; teachers and instructors have typically depended on vocal speech to picture, and demonstrate situations for the understanding of their students with the exception of changes in the evolving technology that is available for combining and delivering that information. Earlier teachers would remember a time when the chalkboard was the main form of instructional media (it still is in many developing countries of the world) used in various classroom lessons. These instructors may recall the enthusiasm with which students greeted the introduction of "new technologies" such as photocopied illustrations, slides depicting visual illusions, filmstrips with audio narration, and especially full motion 16-millimeter films with reenactments of classic experiments. As classroom technology continued to improve, the 1980s saw the introduction of overhead transparencies and videotapes, while the 1990s gave us first videodiscs and then CD-ROMs, the World Wide Web, and eventually digital projectors with the mixed blessings (see

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Atkinson, 2004b) of Microsoft PowerPoint. Technological innovation has accelerated in the first decade of the new century, with digital projectors as standard features in most classrooms, and CD-ROMs or DVDs accompanying many textbooks. And most recently, classrooms, libraries, dormitories and restaurants have high-speed Internet connections that allow reasonable-quality video streaming, and many students now bring wireless laptops, tablet computers, or hand-held devices into the classroom setting (Ludwig, Daniel, Froman & Mathie, 2004).

Rationale for Interactive Multimedia and Hypermedia use for Instructional Delivery

Relating from several other studies, Najjar (1996) mentioned reports from meta analyses which examined over 200 studies that compared learning information that was presented in a traditional classroom lecture to learning the same information presented via computer-based multimedia instruction. The students were in K-12, higher education, industry, and the military. The information that was learned included biology, chemistry, foreign languages, and electronic equipment operation. The control group usually learned the information via classroom lecture or lecture combined with hands on equipment experience. The comparison group usually learned the information via interactive videodisc or some other kind of computer-based instruction. The researchers most often measured learning using tests of achievement or performance. Over this wide range of students and topics, the meta-analyses found that learning was higher when the information was presented via computer-based multimedia systems than traditional classroom lectures.

The active participation of students is one of the major advantages of hypermedia systems. Within education, hypertext has been seen by some as a valuable new constructivist tool for supporting teaching and learning. There are three levels of hypertext in education based on the degree of learner control: read-only hypermedia, participatory, and exploratory hypermedia.

What is Learner Control?

Learner control is defined as allowing the learner some control in an individualized lesson. The learner may control lesson pace, sequence, content, or feedback. Also they control the amount of practice, and level of difficulty. Learner control transfers the responsibility for learning from the designer or the computer to the student. Instead of being the object of a computer based instruction (CBI) lesson, the student is placed in a position of importance and control. An important outcome of learner control is students assume as much personal responsibility for success and failure as is reasonable (Milheim, 1989).

Level 1 Read-only Hypermedia

At this level, learners have minimal control over the training event. It is similar to reading a book. This level hinders students from acquiring information, building sophisticated critical thinking and developing the habit of making connections with facts or information learned. It is appropriate for naive students who cannot decide what to learn first.

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Level 2 Participatory Hypermedia

Research at this level suggests that for training to be effective the learner must be actively engaged in the learning process, and the training itself must be meaningful and relevant to the learners current needs (Knowles, 1970). Reading and writing with hypermedia empowers students, showing them that almost any interesting issue is up-for grabs.

Hypertext is similar to a library, not a book. Students participate in settings such as newsgroup and exchange information. They work together writing their own materials, augmenting others work and replying/commenting on others works.

Level 3 Exploratory Hypermedia

At this level, the hypermedia enables students to explore and construct their own learning. Students access broader arrays of information, such as other libraries, or team with learners from other schools making the processes of acquiring information more meaningful and relevant. Video conferencing for example, provides the necessary collaboration needed to work as a team.

This method of learning breaks down the barriers of time and place, allowing maximum flexibility for the learner. Students are provided a means to learn individually and at their own speed. Students can repeat difficult concepts, or skip already mastered skill areas. At this level, learners have maximum control over their learning and it is beneficial only to those who are already somewhat knowledgeable about a domain or who are generally high-achievers. They have the opportunity to explore, gather information, and create unity out of their educational experiences (cited in Lu (n.d.).

Communicating the Expectations, Challenges and Future Expectations

Several arguments have been brought forward for why multimedia and hypermedia environments should be more effective than system-controlled learning environments.

Hypermedia Structures Mirror the Mind

It has been suggested that amongst the positive things about hypertext is its capacity to utilize linking to model the kind of connections that experts in a particular field make. Therefore, by exploring such links, students benefit from the experience of experts in the field without being restrained by them (Landow, 1992). Similarly, it was assumed that "access to the information is facilitated by the associative organization of the information in multimedia and hypermedia, which was thought to be in resemblance with the associative structure of the human mind (Jonassen & Grabinger, 1990). Therefore, instructions that were developed to reflect this principle were believed to be easily comprehended and assimilated by learners.

Increased Interest and Motivation

It is often argued that involving learners in the decisions regarding their learning process should increase their interest in the content domain and foster their motivation to learn. For example, note that when arguing for multimedia or hypermedia and learning, the words such as self-determination, choice, interest,

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and stimulation to capture the motivational qualities of hypermedia are often rendered by researchers and educators (Alexander & Jetton, 2003).

Adaptation to Preferences and Cognitive Needs

As a result of the adaption to preferences and cognitive needs, learners can select and sequence information according to already existing affective and cognitive structures because learner controlled hypermedia environments enable instruction that is adapted to the learners' preferences and cognitive needs, for instance, to their prior knowledge level (Merrill, 1980). In its most extreme form, it has even been suggested that as a result of the bigger stake they have in their own educational outcome and intimate knowledge of their learning preferences, learners often make better and precise decisions than teachers or instructional designers themselves (Niemiec, Sikorski & Walberg, 1996).

Affordances for Active and Constructive Information Processing

Learner control may support a deeper processing of the information presented, because it forces learners to continuously evaluate which of the information may help them to achieve their learning goals and to decide between different information units (Patterson, 2000). Moreover, the multilinear access to information affords learners to put more effort into identifying the relationships between different information units and integrating them with prior knowledge as it is the case for linear media (e.g., textbooks), where the author provides the argumentative structure for the learner.

Acquisition of Self-Regulatory Skills

Reporting other studies, Scheiter and Gerjets (2007) mentioned that learner control may not only support the acquisition of content knowledge, but may also train students' abilities to self regulate their learning process. In such an environment, giving opportunity for user to control their own learning situation permits them to evaluate consequences associated with the self-directed learning and to learn better how to learn. Therefore, self regulated learners tend to be the managers of their own learning by not only initiating, but also setting goals and monitoring, regulating and controlling their own cognition, motivation, and behavior in order to achieve these goals themselves. Enabling the acquisition of these meta-skills during learning by providing learner control and feedback is thus one important criterion that learning environments for self-regulated learning may have to meet.

Challenges

The Role of Usability Problems

Learner control in hypermedia environments has been shown to involve several usability problems like disorientation, distraction, and cognitive overload. Moreover, it has been argued that the same hypermedia features that may be potentially effective for learning can be detrimental at the same time. Accordingly, it was suggested that hypertext involves a trade-off between the power of the linking and the searching tools it provides and the cognitive demands or costs these

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tools impose on the reader. Therefore, these extra demands cannot be disregarded as they emerge from one of the most beneficial features of hypermedia - the freedom to decide when and which information to access (cited in Scheiter & Gerjets, 2007).

Disorientation

Challenges of disorientation emanate when users seem to be lost and unoblivious of their location on the web, their next destination on the network, and how to actually access their desired site. Also, it has been mentioned that, linking nodes results in a multidimensional learning environment with a spatial extension which engenders spatial disorientation or the phenomenon of lost-in-hyperspace, meaning that the learner often does not know where he actually is on the web, where he comes from, and on which path through the hypermedia-system he can reach a desired node.

Likewise, some studies have proposed three types of disorientation problems that express themselves in a specific navigational pattern: (1) Navigational disorientation problems are caused by a lack of knowledge concerning the structure of the hypermedia system, its extensions, and ways of accessing information. These problems are associated with frequent loops and inefficient paths to target nodes. (2) The embedded digression problem is evident in a disorganized screen layout with multiple windows open at once and repeated backtracking to previously seen information pages. This problem is caused by high cognitive demands, which in turn may impair planning, managing, and executing digressions. (3) The art museum problem results from superficial processing of the information retrieved (i.e., short reading times), which yields an incomprehensive and incoherent cognitive representation of the content and impaired memory for details (cited in Scheiter & Gerjets, 2007).

Distraction

It has been discussed that learners browsing hypermedia environments often access information based on their personal interest which may be subjected to change due to the context of the environment (context-sensitive browsing). That is, learners may form transient browsing goals that direct their information usage behavior. Thus, judging as to whether this behavior is seen as positive or negative could be dependent on the overall learning goal. If there is a specific learning goal that can be entertained by a limited subset of information, then the learner's main task is to pinpoint this information as quick as possible and to attempt comprehend the intended message. In a situation like this, challenges of distraction emanate as a result of humongous topics that are relevant for exploration in parallel or too many attention distracting things from the main task (cited in Scheiter & Gerjets, 2007).

Cognitive Overload

Cognitive overload can result from the freedom provided by hypermedia environments to control the interaction with the system. The term refers to the assumption that meta-cognitive or executive skills necessary for hypermedia navigation may require cognitive resources that will no longer be available for the pursuit of the currently performed main task. In particular, enhanced learner

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control may first cause difficulties in goal·maintenance and thus require "additional effort and concentration necessary to maintain several tasks or trails at one time". Secondly, difficulties in information selection, information sequencing, and pacing may likewise result in cognitive overload. Based on the Cognitive Load Theory (cf. Sweller et al. 1998) it has been assumed that students' "decisions about which content to access, the sequence for reading it, and the rate of reading" (Niederhauser et al. 2000, p. 238) impose additional cognitive load onto the user (cited in Scheiter & Gerjets, 2007).

The Moderating Role of Learner Characteristics

It has often been assumed that increased learner control will accommodate individual differences by enabling learners to adapt instruction to their preferences and needs. In particular, "hypermedia has long been advocated as a way of 'leveling the playing field' and allowing all learners to proceed in a manner that suits their unique learning process" (Dillon and Jobst 2005). However, empirical research has shown that rather than compensating for unsuitable learning prerequisites of some learners, hypermedia tends to increase the gap between good and poor students (cf. Matthew Effect, Stanovich 1986). Hypermedia seems to be especially suited to improve learning for students with higher prior knowledge, better self-regulatory skills, and more positive cognitive styles and attitudes towards learning, who are better able to make use of hypermedia's enhanced freedom (Dillon 1996; Gall and Hannafin 1994; McGrath 1992; Rouet 1990). Self-regulated learning can be characterized as including metacognitive, motivational, and behavioral processes that result in the active participation of individuals in their own learning (cited in Scheiter & Gerjets, 2007).

Lack of Conceptual Foundations

Beyond usability problems and the moderating role of learner characteristics, another reason for the equivocal results obtained with regard to hypermedia effectiveness may be found in the lack of conceptual foundations that could inform hypermedia design. Two aspects of hypermedia design can be distinguished. First, one needs empirically guidelines regarding the design of interactive multimedia components contained in the nodes of the hypermedia network (e.g., text, pictures, animations, video, and their combinations). Here, current theories of multimedia learning may provide helpful guidelines for designers (Mayer 2005). Second, and probably more inherent to hypermedia learning, is the question of why and how to provide the learner control options characterizing hypermedia (i.e., sequencing, content control, and representation control) to students (cited in Scheiter & Gerjets, 2007).

Methodological Shortcomings

As has been bemoaned by many authors, the equivocal pattern of results regarding hypermedia effectiveness might be caused by the fact that there are severe methodological problems in hypermedia research (Dillon and Gabbard 1998; Shapiro and Niederhauser 2004; Tergan 1997). Many studies have small sample sizes, their experimental variations are confounded, and the choice of dependent variables seems inappropriate, rendering an unambiguous interpretation

of the results impossible. With regard to the latter aspect, Landow (1990, p. 42) criticizes: "If hypertext's greatest educational strength as well as most characteristic feature is connectivity, then tests and other evaluative exercises must measure the results of using that connectivity to develop the ability to make connections" (cited in Scheiter & Gerjets, 2007).

Future

- Several significant developments are impacting education today:
- (1) knowledge creation is accelerating requiring more self-directed learners
- (2) media are going digital, allowing computer manipulation and delivery
- (3) networks are expanding exponentially – the accumulated knowledge of humankind is becoming available online
- With the rapid growth of the World Wide Web, we can look forward to a time when multimedia information on any topic will be instantly available anywhere and at any time.
- While this unprecedented level of access to information will be wonderful, will learners be able to successfully utilize it?
- We need to take what we have learned about hypermedia, PBL, etc. and apply it to the design of new online environments for learning.
- We need to further develop our understanding of the interplay between learner and medium to improve the effectiveness of multimedia/hypermedia environments for learning.
- The future may well redefine aspects of traditional education as we know it today.
- It is important for us now to think about what those changes might bring and to continue to research ways to help learners get the most from the new technologies of education.

Some Concluding Remarks

As we have watched each wave of improvements in hardware and software, as well as the evolving trends in educational pedagogy, it appears that the most important lesson is the necessity of keeping the focus on the instructional goal, not on the technology itself.

In the case of schools, the end product is the education of students; teachers are closest to the students, so they are in the best position to influence the quality of education with the students' best interests at heart. Teachers therefore must be empowered. They must be given the time, the tools, the training, and all the support they need. Without this empowerment, the teachers cannot be blamed if the schools fail to meet stated educational goals. With it, teachers can make the difference, because they are trained and have the heart to do so. When they are empowered by leadership in these real terms, teachers can use the resources provided by technology to become the facilitators of quality education, putting students in control of their own learning and thus empowering those students in their turn.

If done well, multimedia content organized with a slideware tool can generate productive and stimulating presentations that lead to greater retention, application to new situations, and performance on assessments. If not done well,

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they can be a distraction from learning and ultimately unproductive. As the need for visual support varies as a function of content and objectives, the decision to use slideware should be made on a lesson-by-lesson basis. At each step in the process, you should ask yourself if the use of this technology is appropriate for your teaching style, the content, your audience, and your desired outcomes. If you decide that using slideware may have a positive effect on your teaching, it is important that you use it consciously, effectively, and strategically.

Recommendations

The study recommends:

(1) A priori argue for why hypermedia may be an effective technology for fostering learning by conducting task analyses that allow elaborating on the link between the content domain of interest, the instructional approach chosen, pivotal knowledge acquisition processes, and the hypermedia features that aid the implementation of this instructional approach as well as the application of its prerequisite cognitive processes (see section on lack of conceptual foundations).

(2) Provide a thorough description of different learner control features that were implemented in the hypermedia environment (see introductory section).

(3) Take precautionary steps to minimize usability problems in particular if the hypermedia environment is designed to teach novice students (see section on drawbacks of learner control in hypermedia environments).

(4) Assess learner characteristics that are important to learning with hypermedia and consider possible interactions between these characteristics, the hypermedia design, and learners' information utilization strategies.

(5) Register and report on learners' use of the hypermedia learner control features.

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An Analysis of the Effects of Leadership Communication and Staff Job Performance in Nigerian Television Authority (NTA), Port-Harcourt Network Centre, Nigeria.

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Abstract

The study sought to analyze the effects of leadership communication and staff job performance in Nigerian Television Authority (NTA) Port-Harcourt network centre. Mixed research method was used to generate data for the study. An in-depth interview together with a structured questionnaire was used to generate data for the study. The population of the study consisted of 128 staff members. Stratified random sampling was used to select a sample size of 60 staff members who participated in the study. Findings from the study showed that the modes and channels of communication used by the leadership of NTA Port Harcourt network centre were considered as being effective, fosters positive growth and development, however, this did not significantly influence employee job performance and satisfaction of the staff members. The study recommends that other channels of communication should be explored for more effective output and increased performance.

Introduction:

To lead successfully, managers or leaders need to have credibility and be trusted by other employees or staff under them. It is through communication that leaders develop, generate, cultivate, shape and reshape ideas in an organisation. Effective organisational communication becomes paramount to ensure effective leadership since leaders must communicate to accomplish organisational goals (Wimmer and Dominic, 2006). In view of this, it means that communication is the single most important tool a leader has at his or her disposal to influence employees' job performance in an organisation. Effectiveness in communication is also predicated on a positive communication climate. Adler and Towne (2003) have argued that whether it is in the workplace, classroom, or the home, people thrive in communication climates that affirm and support them. The climate of a relationship is shaped by the degree to which people believe themselves to be valued by one another.

Effective communication involves everyone and this means encouraging constructive debate. Those who see flaws in the way things are done or have ideas for improving processes may be politely ignored or even treated with hostility (Mercer Human Resource Consulting, 2003). When this happens, teams risk failure because when things change they cannot adapt. Effective leaders build trust by encouraging a diversity of opinion. Those in the majority must trust that those who disagree do so honestly and with good intentions while those in the minority must feel that they are free to speak up.

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Leadership is impossible without a guiding vision and a purpose that generates passion for accomplishment. The vision or guiding purpose is the source from which leadership derives its magnetic field to activate the commitment, co-operation and confidence of others. It derives its power from values, deep convictions and correct principles and is the highest prospect of management (Kaplan and Norton, 2004).

The Nigerian Television Authority, the largest TV Network in Africa, was set up in May 1977 through Decree 24. It effectively began operation in April 1978. It has been effectively used for shaping, re-shaping and consolidating our national consciousness and unity as Nigerians. Just like Archeologists, the NTA digs up historical information, stored knowledge, expressed in words, sound and visual footages. For effectiveness and good service delivery, the NTA has been decentralized into Nine Network Zones in addition to the Abuja National Headquarters. The aim is to showcase the divergent cultures of the various ethnic groups across Nigeria. This is rooted in the Authority's vision "to be a world class Television Network in the new world order". The Port-Harcourt network centre has two community stations which are Brass and Eket community stations.

Statement of the Problem

Communication and leadership are very important elements of organizational behavioural studies as it is simply impossible to become a great leader without being a great communicator. Developing excellent communication is absolutely essential to effective leadership in an organisational setting and this is geared towards employee job performance.

Historically, leadership of NTA and its stations is laden with complaints and conflicts. It seems staff of the organisation have experienced and witnessed some breakdown in law and order owing to poor leadership occasioned by lack of communication. This perhaps led to a situation where there is a gap in communication which has affected staff job performance. It is not certain the factors responsible for the observed ineffective leadership. Since communication is one of the important variables that determine the level of leadership performance, it becomes necessary to analyze the effects of leadership communication and staff job performance in Nigerian Television Authority (NTA) with particular reference to the Port-Harcourt network centre.

Objectives of the Study

The study sought to:
1. Find out the communication strategies used by leaders of NTA Port-Harcourt network centre in the management of human resources and their impact on staff job performance.
2. Find out the perception of staff on the communication strategies of leaders of NTA Port-Harcourt network centre and their impact on job performance.

Research Questions

Arising from the objectives, the following research questions guided the study:
1. How effective are the communication strategies used by leaders of NTA Port-Harcourt network centre in the management of human resources?

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3. What is the
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2. Do employees belief that the communication system adopted by leaders of NTA fosters positive growth and optimum performance?
3. What is the influence of communication strategies on job performance of staff?

Literature Review

Communication is vital to human interactions and progress. Wilson (1997) explains its place in society and human activities. According to the author, "It is clear that without communication life would be very dull. It is like the engine that works human activities. To communicate means to give life to symbols, words, with oneself and others, to increase or reduce tension and to blast off the barriers to oneness and understanding among human beings. As an elixir of life, it is the tonic which most people need in conflict situations to reduce the level of human conflict. It gingers man into the great joy of living. It is the ecstatic aliveness that breaks the silence of the grave yard which rules the governance of the world's leaders who are dictators". This shows that communication is the hub around which leadership thrives.

Communication is continuous as well as transactional and participants in a communication process belong to different environments which share some similarities and create their relationships by exchange of messages (Adler and Towne, 2003). Throughout life, the personal, professional and social lives of individuals as well as the culture in which they live is shaped by communication (Wood, 2006). People communicate to develop identities, establish connections, co-ordinate efforts with others, deepen ties over time and work out problems and possibilities (Wood, 2007).

Richmond (2004) identifies three major goals of communication in an organisational environment – developing interpersonal relationships, gaining compliance and gaining understanding. In other words communication helps to foster better interactions between or among persons. In a formal organisation, the extent to which rules are adhered to depends on the message and the channel through which the message is communicated. Once a message is properly communicated, it creates avenue for a shared meaning between the sender and the receiver. Where these goals are lacking especially in formal organisation, it will be difficult for employees to understand the mission of the leaders in realizing the goals of the organisation.

Communication is an integral part of the internal process of leaders. By constantly asking what do my employees feel about my communication policies, goals and attitudes, leaders on their part are gaining perceptions about leadership styles and giving the employees job satisfaction. Their perceptions can manifest speedily when the right communication environment is created for employees to bare their minds about what they feel of their leaders. This spurs performance and achievement of organisational goals (Hackman and Johnson, 2009).

Research Method

The research used a mixed method as the design for the study. The aim was to collect both quantitative and qualitative information that provided strong data for the study. Qualitative data were obtained using in-depth interview, focus